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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/161,277    09/28/98    YOSHIDA

E    44084-326

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WM31/0730

EXAMINER

TRAN. D

ART UNIT

PAPER NUMBER

2624

DATE MAILED:

07/30/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/161,277

Applicant(s)

YOSHIDA ET AL.

Examiner

Douglas Q. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6,9-13,15,16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-13,15 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9-13, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamagaki in view of Bender et al. (US Patent No. 5,791,790).

As to claim 1, Tamagaki teaches:

determining means (i.e., controller section 67 in fig. 6) for determining, when the image forming apparatus has been restored to a normal state (i.e., the trouble solving process is completed in step of S72 in fig. 11), whether each job remain to be printed based on the print job processing status information stored in the backup memory ( col. 10, lines 59-65);

resend request issuing means (i.e., controller section 67 in fig. 6 and S76 and S77 in fig. 11) for requesting the terminal device (70 in fig. 6) that sent data of a respective print job to resend the data for each job that it is determined remains to be (col. 10, line 65 through col. 11, line 6).

However, Tamagaki does not teach a non-volatile memory which stores processing status information of a plurality of print jobs;

Bender teaches a non-volatile memory which stores processing status information of a plurality of print jobs (col. 4, lines 61-67 and 61-67; note: Header file that contains status information about this print job (i.e., print data ) will be inspected).

It would have been obvious to have modified the system of Tamagaki for storing processing status information of print jobs by a non-volatile memory as taught by Bender. The suggestion of modifying the system of Tamagaki can be reasoned by one of ordinary skill in the art as set forth by Bender because Bender provides a printer easily keeps track and inspects the status of the uncompleted printing data in a non-volatile memory after the power is restored and continues to print the job.

As to claim 2, Tamagaki teaches the restoration in the determining means is a power restoration after a shutdown (col. 13, lines 3-4).

As to claim 3, Tamagaki teaches job id information supply means for providing job id information to each print job data sent from the external device (col. 10, line 65 through col. 11, line 2).

As to claim 4, Tamagaki teaches wherein the resend request issuing means requests to resend the data based on the job id information of the outstanding print job.

As to claim 5, Tamagaki teaches wherein the non-volatile memory stores the job id information with a terminal device id which send data of the job (col. 10, line 65 through col. 11, line 2).

As to claim 6, Tamagaki teaches wherein the data includes an information of print request and a print data (col. 11, lines 33-37).

As to claim 9, Tamagaki teaches

the image forming apparatus (10 in fig. 6) including:

determining means (i.e., controller section 67 in fig. 6) for determining, when the image forming apparatus has been restored to its normal state (i.e., the trouble solving process is

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completed in step of S72 in fig. 11), whether or not any job remain to be printed based on the print job processing status information stored in the backup memory ( col. 10, lines 59-65);

transmitting means (i.e., controller section 67 in fig. 6 and S76 and S77 in fig. 11) for sending information to request a terminal device (70 in fig. 6) that sent data of a respective print job to resend the print data for each job that is determined remains to be printed (col. 10, line 65 through col. 11, line 6).

the terminal device (70 in fig. 6) including:

receiving means (S104 in fig. 13) for receiving a data resend request sent from the image forming apparatus (col. 11, lines 34-37) when the image forming apparatus has been restored to its normal state (i.e., the trouble solving process is completed in step of S72 in fig. 11);

data resend means (S106 in fig. 13) for resending the data in response to the resend request (col. 11, lines 39-41).

the motivation of this claim is the same as the motivation in claim 1.

As to claims 10-11, due to the similarity of these claims to those of claims 2-3, these claims are rejected by the reasons applied to claims 2-3

As to claim 12, Tamagaki teaches wherein the receiving means receives a job identification information with the resend request, and the data resend means resend the data corresponding to the job identification information (col. 10, line 66 through col. 11, line 2).

As to claim 13, the combination of Tamagaki and Bender teaches the method including resuming printing based on the resend data sent from the terminal device is performed by the apparatus claim 1 as indicated above.

As to claim 15, the combination of Tamagaki and Bender teaches the method is performed by the apparatus claim 9 as indicated above.

As to claim 16, Tamagaki teaches:

a backup memory which stores printing processing information of print job, the printing processing information for each print job including job identification, image data address, and job status indicating whether or not a print job has been printed (col. 12, line 62 through col. 13, line 4);

a volatile memory which stores image data (i.e., image data read from a data storage section 54 in fig. 3, col. 4, line 24 and col. 7, lines 36-43, note: a data storage section 54 would be a volatile memory) corresponding to each print job at the image data address specified by the backup memory, the volatile memory subject to loss of all data when power is not supplied thereto (note., print data in the memory 54 inherently is lost due to power be turned off, col. 10, lines 61-62, col. 12, lines 62-67);

determining means (i.e., controller section 67 in fig. 6) for determining when supply of power to the volatile memory has been interrupt, and when power has been restored to the volatile memory, determining whether there are any print jobs that have not been printed based on the job status information stored in the backup memory (col. 12, line 63 through col. 13, line 4 and col. 10, lines 59-65);

resend request issuing means (i.e., controller section 67 in fig. 6 and S76 and S77 in fig. 11) for requesting the terminal device (70 in fig. 6) that sent the image data of a respective print job that has not been printed to resend the image data for storing in the volatile memory (col. 10, line 65 through col. 11, line 6).

a controller which, when power is restored to the volatile memory after being interrupted and the determining means determines that there are any print jobs that have not been printed (col. 12, line 63 through col. 13, line 4), clear the respective image data address in the non volatile memory prior to the image data being resent by the corresponding terminal device (note: since the print data being resent from the host to the printer, any previous information for that job in the backup memory does not need, therefore that information would be clear.) .

the motivation of this claim is applied as in claim 1.

***Response to Arguments and Amendment***

Applicant's arguments filed 6/14/01 have been fully considered but they are not persuasive.

Applicant asserted in page 6 " More specifically, Bender teaches that a (preferred ) printer stores all the print job data in a "non-volatile memory" so that when power is lost before a particular print job has been entirely printed, this fully buffered print job will remain in the non volatile memory indefinitely until the power is restored. No other use of a non-volatile memory is disclosed or suggested in Bender. Thus, there is no problem of printing data being lost in the non volatile memory of Bender and no need to issue a resend to the host computers that send the printing data". In reply, the advantage of Bender's system clearly discloses the non-volatile memory does not only stores print jobs but also stores information of those print jobs. This advantage of Bender's system does not need to waste time in order to request for resending other print jobs because these print jobs and all print job data are not lost if the power is lost. Since

Bender's the non-volatile memory stores the status information of these print jobs, this feature can modify to the deficiency of Tamagaki's the system.

Applicant argued in page 7: " Neither Tamagaki nor Bender disclose or suggest such a controller for clearing a respective image data address in the non volatile memory prior to the image data being resent by the corresponding terminal device." In reply, Tamagaki teaches the backup memory just only stores the information of the print data when the print data is lost due some error of the printer including the lost power. Therefore, the information of the lost print data would be inherently deleted from that memory because the printer does not need that information anymore when it performs printing with that resend print job. Also, Bender do the same concept that the printer deletes the information of print jobs from the non volatile memory once the print job has been verified as having been completely printed (col. 5, lines 1-5), because the printer of Bender does not need that information when the print jobs are printed.

For the above reasons, it is believed that the cited prior art fully discloses the claimed invention and the rejection stand.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after



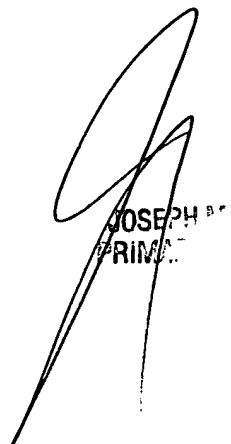
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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas Q. Tran whose telephone number is (703) 305-4857 or e-mail address is Douglas.tran@uspto.gov.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Douglas Q. Tran  
Mar. 10, 2001



JOSEPH  
PRIM

Attachment for PTO-948 (Rev. 03/01, or earlier)  
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

**INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

**1. Correction of Informalities -- 37 CFR 1.85**

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

**2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.**

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

**Timing of Corrections**

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a)

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.